

Application Number 09/918,262
Amendment dated August 19, 2004
Responsive to Office Action mailed June 15, 2004

REMARKS

This paper is responsive to the Office Action dated June 15, 2004. Claims 1-26, 28-33 and 35-38 are pending.

In the Office Action, the Examiner allowed claims 1-26 and 28-33. However, the Examiner rejected claims 35-37 under 35 U.S.C. § 102(e) as being anticipated by Petell et al. (US 6,302,570) (hereafter Petell). The Examiner also rejected claim 38 under 35 U.S.C. § 103(a) as being unpatentable over Petell.

Applicant respectfully traverses the rejection of claims 35-38. Petell fails to disclose each and every feature of the claimed invention, as required by 35 U.S.C. § 102(e), and provides no teaching that would have suggested the desirability of modification to include such features.

Independent claim 35 recites a sign comprising a frame, a light emitting diode housed within the frame, a first light guide positioned to be illuminated by the light emitting diode, wherein the first light guide provides directional side lighting in a first direction, and a second light guide positioned to be illuminated by the light emitting diode, wherein the second light guide provides directional side lighting in a second direction.

Petell fails to disclose or suggest these features. In particular, Petell lacks any suggestion of light guides that provide directional side lighting, as recited in claims 35-38. Accordingly, Petell clearly lacks any suggestion of a sign that includes different light guides that provide directional side lighting in different directions, as required by claims 35-38.

Petell discloses a compact illumination device that uses optical fibers. Unlike light guides used in the sign defined by claims 35-38, however, the optical fibers of Petell do not provide directional side lighting. On the contrary, the light guides of Petell emit light from distal ends of the light guides. In contrast to light emission from the distal ends of light guides, as taught by Petell, the phrase "directional side lighting" refers to lateral light emission out of the longitudinal side of the light guides. Moreover, "directional side lighting" requires the side lighting to be defined in a specific direction, i.e., be directional. Thus, directional side lighting requires that the light emission not be random from all directions of the light guide, but directional so as to provide lighting in a specific and non-random direction.

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In stark contrast to "directional side lighting" as required by claim 35, Petell discloses light emission from distal ends of the light guides and lacks any suggestion of side lighting, much less directional side lighting. At column 1 lines 39-46, for example, Petell describes that:

The bundle of optical fibers has a proximal end, a distal end and a longitudinal length. The proximal end is formed by the first ends of the optical fibers. The distal end is formed by the second ends of the optical fibers. The proximal end is securely mounted in a bundle holder disposed through the aperture and positioned at a predetermined focal distance from the light source to allow light from the light source to be transmitted to the distal end (emphasis added)

At column 2, lines 56-67, Petell describes that:

the illumination device 150 has a bundle of optical fibers formed by many strands. A typical bundle has between 25 to 100 strands of optical fibers. These strands are attached to the illuminating points 132₁ to 132_N and 142₁ to 142_N so that when light is transmitted through the fibers, the ends of these strands are lighted and illuminate the illuminating points. (emphasis added)

At column 4, lines 42-46, Petell describes that:

The proximal end is positioned at a focal distance L from the light source 290 to allow light from the light source to be transmitted to the distal end, i.e., the second ends of the optical fibers, along the longitudinal length. (emphasis added)

At column 4, lines 58-64, Petell describes that:

Each of these optical fibers is sanded such that about one inch of each of the optical fibers measured from the respective second end is stripped of the cladding. This removal of cladding allows the light emitted from the light source 290 to be visible along the distance of about one inch from the second ends of the optical fibers. (emphasis added)

At column 6, lines 12-20 Petell describes that:

The proximal ends of the bundles 340 and 341 are securely mounted in bundle holders 350 and 351, respectively, through the two apertures formed by the base bundle openings 372, 373 and the cover bundle openings 362, 363. The proximal ends of the bundles 340 and 341 are positioned at a focal distance L from the light sources 390 and 391 to allow light from the light source to be transmitted to the second ends of the optical fibers along the longitudinal length. (emphasis added)

From each of these passages cited above, it is very clear that Petell does not contemplate light guides that provide directional side lighting, whatsoever, much less two light guides that

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provide directional side lighting in different directions as required by claims 35-38. On the contrary, Petell describes light guides that are illuminated at one end to provide light output at the other end. Nothing in Petell suggests side lighting, directional side lighting, or directional side lighting in different directions as required by claims 35-38. For these reasons, Applicant respectfully request withdrawal of the rejections of claims 35-38.

With respect to claim 37, Applicant also respectfully points out that this claim requires that the first and second light guides are positioned to be illuminated by both the first and the second light emitting diodes. This is also clearly lacking from the disclosure of Petell. In Petell, each respective light guide is illuminated by one and only one light source. None of the light guides in Petell is illuminated by first and the second light emitting diodes, as required by claim 37. Moreover, because the distal end of Petell is used for light emission (as outlined above), it is totally unclear how the light guides of Petell could be illuminated by two light emitting diodes because the distal end could not be used to receive light from a second light emitting diode. For these additional reasons, Applicant respectfully submits that the rejection of claim 37 should be withdrawn.

With respect to claim 38, Applicant respectfully notes that the first and second light guides are required to provide lighting in different colors, but are also required to be illuminated by a common light emitting diode as recited by independent claim 35. Thus, the Examiner's position that one of ordinary skill in the art would have considered it obvious to use differently colored light emitting diodes to illuminate the different light guides does not address the requirements of claim 38. Claim 38 requires that the two light guides be illuminated by a light emitting diode, but also provide lighting in different colors. This could be achieved, for example, via the use of one or more filters or different filtering material within the respective light guides or coated on the respective light guides. See Applicant's specification page 12, line 28 to page 13, line 1. Petell lacks any suggestion of such features. Moreover, whether or not a person of ordinary skill in the art would have considered it obvious to use different colored light emitting diodes to illuminate the different light guides is irrelevant because claim 38 (by virtue of its dependence on claim 35) requires illumination of both light guides by a common light emitting diode. For this additional reason, Applicant respectfully submits that the rejection of claim 38 is improper and should be withdrawn.

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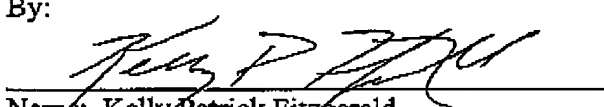
For at least the reasons outlined above, the Examiner has failed to establish a prima facie case for non-patentability of Applicant's claims 35-38 under 35 U.S.C. 102(e) or 35 U.S.C. 103(a). Withdrawal of the rejections of claims 35-38, and allowance of all pending claims, is requested. Applicant does not acquiesce to any of the rejections or characterizations of the prior art, and specifically reserves the right to further address such rejections or characterizations. Please charge any additional fees or credit any overpayment to deposit account number 50-1778. The Examiner is invited to telephone the below-signed attorney to discuss this application.

Date:

August 19, 2004

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